

CLAIMS

1. Ink-only label at least consisting of an adhesive layer, an ink-only image layer and optionally a protective layer, wherein the label, when applied to a substrate, has a water permeability coefficient, as defined herein, which is
5 sufficient to enable fast removal of the label from the substrate with water or an aqueous alkaline solution, without destructive treatment of the said substrate.
2. Label according to claim 1, wherein a transparent, protective coating has been applied over said image layer.
- 10 3. Label according to claim 1 or 2, wherein the water permeability coefficient is between 0.15 and 2.5.
4. Label according to claim 1-3, wherein the water vapour transmission value is between 50 and 750 g/m²/24 h.
5. Label according to claim 1-4, wherein the pencil
15 hardness test value is between 1 and 7 N.
6. Label according to claim 1-5, wherein the adhesive layer and the image layer, optionally together with the protective layer, have been coalesced.
7. Label according to claim 1-6, wherein an polymeric
20 ink, preferably a urethane, vinyl- or acrylic-based ink has been used in the image layer.
8. Label according to claim 1-7, wherein the ink is water-soluble.
9. Label according to claim 1-8, wherein a heat
25 activatable adhesive has been used, preferably a urethane acrylic, with an initial tack temperature of 90°C maximum.
10. Label according to claim 1-9, wherein the protective coating is based on an acrylic wax.
11. Transfer label comprising a backing layer and a
30 transfer layer which is releasably attached to the backing layer, said transfer layer comprising an ink only label as defined in any one of the claims 1-10.
12. Transfer label according to claim 11, wherein the transfer layer, when applied to a substrate breaks up in at
35 least 4 pieces under turbulent soaking conditions in an

aqueous liquid of a temperature below 100°C, preferably below 70 °C, within a soaking time of not more than 20 minutes, preferably not more than 10 seconds and becomes detached from the substrate.

- 5 13. Container comprising on at least one surface thereof an ink only label according to any one of the claims 1-10, and/or an ink only label which has been applied using a transfer label according to claim 11 or 12.
- 10 14. Container according to claim 13, wherein a cover layer is applied over the label which cover layer comprises an acrylic wax.
- 15 15. Container according to claim 14, wherein the cover layer is attached upon or after attaching the transfer layer to the container.
- 16 16. Container according to claim 13-15 wherein the label, optionally in combination with the cover layer, has been heat-treated after application to the container at a temperature between 40°C and 100°C.
- 20 17. Container according to any of claims 13 to 16, comprising an application surface for receiving the label which application surface has a surface tension of at least 60 Dyne per cm.
- 25 18. Container according to any of claims 13-17, the label on the container having a pencil hardness between 1N and 7N in its dry state and a pencil hardness less than 0.5N after a soaking time between 1 and 15 minutes in water of 20°C.
- 30 19. Container according to any of claims 13-18, wherein the label on the container has a water uptake value after 3 hours greater than 1 and below 75 g/m², preferably about 5 g/m².
20. Container according to claim 13-19, the container having been selected from the group consisting of plastic crates, plastic bottles and glass bottles.
- 35 21. Method of washing a container according to any of claims 13-20, comprising the steps of:

- placing the container in an aqueous soaking solution during a soaking time not longer than 10 min, preferably not longer than 1 minute, the temperature of the soaking solution being below 100°C, preferably below 70°C, while
- 5 causing turbulence in the soaking solution such that the label breaks up,
- pumping the soaking solution through a sieve and collection of the pieces of the label on the sieve,
- periodically, preferably continuously, cleaning the
- 10 sieve by collection and removal of the label pieces.
22. Method according to claim 21, wherein the openings of the sieve are between 1 mm and 10 mm, preferably about 2 mm.
23. Method according to claim 21 or 22, comprising the
- 15 step of impingement of water jets on the container before and/or after placing the container in the soaking solution.
24. Method according to claim 21-23, wherein the soaking solution comprises between 0.1 and 5 % by weight, preferably 0.5% NaOH.